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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/085,820	05/28/1998	HAI U. WANG	CIT98-01PA	7434

21005 7590 12/17/2002

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EXAMINER

ANDRES, JANET L

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 12/17/2002

29

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/085,820

Applicant(s)

WANG ET AL.

Examiner

Janet L. Andres

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 154-240 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 195-231 is/are allowed.
- 6) ☒ Claim(s) 154-194, 232-240 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. Applicant's amendment filed 4 October 2002 is acknowledged. Claims 154-240 are pending and under examination in this application, it having been agreed in the interview of 16 September 2002 that non-elected species would be examined. The text of those sections of Title 35, U.S. Code, not included in this action can be found in a prior office action.

Claim Rejections/Objections Withdrawn

2. The rejection of claims 10, 72, 79, and 82 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in response to Applicant's amendment.

3. The objection to claims 3, 10, 42, 74, 76, 77, 85, 94, 116, 125, 126, 129, 130-134, 136-138, 143-149, 151, and 152 is withdrawn in response to Applicant's amendment.

Claim Rejections Maintained

4. The rejection of claims 3, 5, 42, 76, 77, 85, 88-91, 93, 94, 98-102, 116, 121-126, and 129-132 under 35 U.S.C. 112, first paragraph, as lacking enablement commensurate with the scope of the claims is applied to new claims 153-194 and 232-240.

Applicant has amended the claims so that they no longer require enhancement of interactions. However, the only agents pointed to and specifically claimed by Applicant as having agonistic activity are soluble receptors and receptors and ligands fused to antibodies (claims 158-160 and 179-181, 233, 235-237). The only agents claimed as having antagonistic activity are antibodies (claims 165-167 and 186-188) and soluble receptors and receptors and ligands fused to antibodies (claims 168-170, 189-191, 234, 238-240). There are no teachings in the specification to indicate that any of these agents would function as claimed and the receptors and ligands are in fact claimed as having two different functions. While the teachings on p. 30

Art Unit: 1646

indicate generally that clustered fusion proteins can be used as agonists and non-clustered forms can be used as antagonists, only claims 160, 170, 181, and 191 are correspondingly limited.

Further, the specific teachings pointed to in Wang et al. encompass only repulsive neuronal outgrowth; there are no teachings either in Wang et al. or in the instant specification that would allow one of skill to predict that angiogenesis would respond in a fashion similar to neuronal outgrowth. There is no evidence presented in Wang et al. and no direction provided by Applicant to indicate that the two systems are analogous, nor does Wang et al. address non-clustered forms. Similarly, there is no specific guidance set forth in the specification to indicate that antibodies would be predictably antagonistic. As stated on p. 4 of the previous office action, the outcome of affecting eph-ephrin interactions is unpredictable. Furthermore, one of skill in the art, given the teachings that clustered receptors could be agonistic, would reasonably expect that at least some antibodies could have the same effect, since antibodies could induce clustering. Thus, one of skill would not be able to predict, based on the instant specification, the teachings of the prior art, and the general knowledge in the art, how soluble receptors, ligands, and antibodies would function. Without further guidance to allow one of skill to predict which agent would function in which fashion, it would require undue experimentation to practice the invention as broadly claimed.

CLAIMS 154-194 AND 232-240 ARE REJECTED. CLAIMS 195-231 ARE ALLOWED.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Andres, Ph.D., whose telephone number is (703) 305-0557. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564. The fax phone number for this group is (703) 872-9306 or (703) 872-9307 for after final communications.

Communications via internet mail regarding this application, other than those under U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [yvonne.eyler@uspto.gov].

All Internet email communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that

Art Unit: 1646

sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark Office on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Janet Andres, Ph.D.
December 11, 2002

A handwritten signature in cursive script that reads "Lorraine Spector". The signature is written in black ink and is positioned above the printed name and title.

LORRAINE SPECTOR
PRIMARY EXAMINER